division by revenues or by connections or by phone numbers, we still have a concern. There's no magic wand that's going to solve that funding dilemma, getting the same money essentially to the same people.

That constraint being there, I think we need to consider our main focus in the near terms as controlling the size of the fund and the measures that ensure incentives for operating efficiently, that deal with costs of duplication of supporting multiple networks, and that also prevent us from expanding without meaning to the entitlement that we offer to consumers in rural areas in changing the kinds of services that they can buy. We've made four recommendations that deal specifically with those concerns, and I'll just list them quickly here.

First, we recommend that the FCC should establish a rebuttable presumption that there should be only one ETC in each rural serving area.

Second, in areas where that presumption's overcome and for whatever reason they have more than one ETC, we need a second line of defense, another control mechanism. We propose that that should be a primary line approach that essentially de-couples the carrier's -- the customer's purchase decision from how much subsidy they get, which I think we need to do to avoid having somebody go from, say, one wireline line to adding, say, five wireless handsets. And so, $20 in subsidies turn into $120 of subsidies.

The third measure that we would propose is that at the outset of any new plan, the support level should be based on the incumbent carrier's actual expenditures during the previous 12-month period rather than on some level it's already cost us. However, that should only be done once going forward. And then that should be frozen and then indexed so as to provide an incentive to all ETCs in each area to operate efficiently.

And, finally, fourth, I think we need to recognize that the larger carriers in rural areas providing universal service have characteristics in terms of density, investment per line, portion of business customers in the area, and so on, that really make them much more similar to the non-rural carriers than they are to the smaller carriers in rural areas.

And so, it makes more sense, we feel, to consolidate study areas within each state than on a consolidated basis that a carrier that's serving more than 100,000 lines in a given state ought to be treated the same way as non-rural areas are.

Those are specific proposals. You'll notice we provide incentives for efficiency without going through what I think will be the agony of developing a new cost model or arguing about the inevitable errors in such a mechanism.

I would also caution, given the premise in which I started, in trying to export the problems of the intercarrier compensation world into this world where we're already having enough problems dealing with the difficulties we're facing here already.

And, finally, in conclusion, I'd like to turn to the question that Billy Jack Gregg asked, which is, what do we do about universal service in a broadband age. And my answer to that is something completely different. I don't think we should kid ourselves that the near-term proposals that we're talking about in these open proceedings are policy for the ages or that they're going to survive more than about, say, five years in the face of changes I think we can all see coming.

I'm just going to list three of those changes very quickly, and I invite your questions during the remainder of the session.

First, we're all transitioning, we're all building IP-based networks. So, as we do that, we're going to exchange traffic, we're all going to play by Internet rules, not by the old circuit switch rules. Those new networks and that change in the market is good for the consumers. It's going to offer them many more choices. But as a side effect, it's going turn rural ILECs from net recipients of access service to net payers of transit service to interconnect with Internet backbones.

Again, that's not a market solution that we ought to try to change, but we need to take account of it in considering what the requirements are going to be to meet our universal service goals in the future.

Secondly, in terms of contribution, simply put, we have a sector-specific approach to contribution today, or certain contributions from certain carriers. We're one of only a handful of countries around the world to try to do that. Most countries do it out of general revenue. And by that, I don't mean state plus interstate telcom revenue; I mean the federal budget. A sector-specific tax works if you can identify the sector. Going forward as the telcom sector emerges with a larger Internet, we're not going to be able to do that and we're not going to tax the larger Internet as whole. So, we have to work through another funding source. That may be painful but I think this may be like democracy in that it's the worse solution except for all the others.

And, finally, we have a certain notion of how the universal service funding mechanism works. Money goes into a fund, comes out of a fund in terms of monthly checks. The checks supported a fine, local service. And I think all of that framework is going to be rethought for the future.

If I have a broadband connection to the world, I may get my voice application from anyone. It could be a VoIP provider in Estonia. Unless we want to get into the business of having USAC send checks to Estonia, we probably need to rethink the structure of that. We probably need to start funding infrastructure more directly, perhaps through up-front grants. One advantage of that, I think, also is it decouples the decision of what to support from the decision about what to regulate. And I don't mean to give you the answer to either of those, but I suggest those decisions ought to be made independently.

So, with that, I'll stop. And I invite your questions. Thank you.

COMMISSIONER ABERNATHY: Thank you very much, Mr. Weller.

And now, Mr. Dale Lehman from the Alaska Pacific University. You probably came the furthest. Thanks.

DR. LEHMAN: Probably flew the most

hours, I think, yes.

Thank you for the opportunity to come and participate in this panel. I don't believe this panel exists because of the theoretical differences between forward-looking and embedded costs. I do believe this panel exists because embedded costs have a unique property in that they are intimately tied to the actual costs of providing universal service. And only forward-looking costs provide the basis for creating an illusion that somehow universal service can be provided far more cheaply than it is today. And I think that that illusion is produced in three fundamentally flawed ways, all of which have been provided to you in various pieces of testimony.

One is this vision that somehow the rural ILECs' costs are rapidly increasing. In fact, they have pretty much matched inflation on a cost-per-line basis. And I think the best benchmark to compare that to is states' own price cap proceedings in which 38 states, their average X factor for productivity they expect in a local exchange pretty much matches the inflation rate, which is what the high-cost fund is also matching.

The growth in the high-cost funds, which undeniably has been large in the last five years, has been due primarily to a restructuring from implicit to explicit support, to some extent to the acquisition of rural exchanges from larger carriers and subsequent investment, to some extent through the re-initializing of the cap that was in place over the 1990s, and a very slight extent to an increase in lines. But it's not that the cost -- the cost per line has not been increasing dramatically. So, it's an illusion to think that there's some waste that's occurring suddenly in the last five years. It was either there all along or it hasn't been occurring.

The second is this perception, the allegation of systematic waste and inefficiency that goes on. And I think the only evidence that's been provided of systematic inefficiency concerns the issue of the number of rural carriers and whether massive consolidation would, in fact, be a good idea. And I suspect we may have some more discussion of this, but I would just point out that I don't think -- I think the cost savings are unproven and, in any case, I think it is a very bad idea for rural areas to think that you should be urging a massive consolidation of rural telephone companies.

The third illusion of waste that goes on is probably the most disturbing. And that's this vision that technology is changing and somehow it has dramatically reduced the cost of providing universal service. I don't think that comports with the facts on the ground with the exception of possibly switching. Loop costs have not experienced that kind of technological progress. And what's more troublesome is if you really believe it has, we should be talking about a different issue that's hardly been raised.

And that's that if carriers made prudent investments in the past when technology was different and now technology has rendered the costs far lower than what they already spent, they have under-recovered those investments to this point in time, and we need to be talking about how to make them whole in the sense of the prudent investments they made in the past. And this is important in a forward-looking sense because future investment in rural areas depends on how you treat the investments that were already made in rural areas.

So, if you really believe that technology has made the current technology obsolete, we should be talking about how do we ensure that carriers have an incentive going forward to invest in the next generation of technology, which will also be made obsolete at some time in the future.

And, finally, I would say that I think I agree with a couple of things that I heard, that the choice of embedded costs and forward-looking cost really shouldn't divert you from far more important issues. And I think intercarrier compensation, how to fund competitive, eligible telcommunications carriers, as well as the contribution that comes in for USF are far more important and far more worthy of your time than chasing after a forward-looking cost standard.

Thank you.

COMMISSIONER ABERNATHY: Thank you very much, Dr. Lehman.

And, last but not least, Dr. Lee Selwyn will be giving us a presentation from Economics and Technology, Inc.

Thank you, Dr. Selwyn.

DR. SELWYN: Good afternoon, commissioners. Thank you for the opportunity to speak with you this afternoon. I will summarize my written statement emphasizing a couple of key points.

I think that the policy that has been developed over the years, and you heard a lot of it in the remarks so far this afternoon, has been focused on rural carriers. I believe that fundamentally universal service policy has to be focused on consumers. And consumers' interests may not coincide precisely with the service providers that serve these areas. Consumers' interest -- and, incidentally, consumer interests come both with respect to rural consumers as well as consumers in non-rural areas who are being asked to contribute to the high-cost funding mechanism.

For the consumers who contribute, obviously, as the total size of the fund escalates and their surcharges continue to rise, that's clearly a concern. But for consumers in rural areas, if the size of the fund continues to escalate at the rate at which it has been escalating in recent years, the political basis for continuing this support mechanism could well erode. And the very fact that some of the discussions that we are having here today are taking place is evidence of that. And that is not necessarily in the interest of rural consumers who are looking for ways to assure that service is available in their community.

Second point is that there's been some discussion about the effect of CETCs entering in rural areas, getting certification, and drawing funds from the high-cost support mechanisms. Concerns are expressed that if CETCs erode rural LEC revenues, causing -- further escalating the size of the fund and not allowing the rural LECs to shed costs as rapidly as they might be shedding revenues.

Interestingly, these are not new arguments. We've heard these arguments. I've been involved in this field now for 30-some-odd years, and we've heard these arguments at every stage of the entry of competition into almost every sector of the telcom industry. And this is simply the latest incarnation.

If we have a national commitment to competition, I don't think it's appropriate to carve out certain segments of the country and simply declare competition as nonfeasible and not to be supported. If we subsidize incumbents and do not subsidize competitors serving the same types of customers in the same areas, we create very perverse incentives. We deny customers in those communities access potentially to more efficient, lower cost, and perhaps more functional -- more highly functional technologies and alternate services. It's hard for a competitor to come in and compete with a subsidized incumbent. It's hard enough for a competitor to compete with an incumbent.

If the incumbent is subsidized, it may make entry almost impossible.

Competition at a certain level is going to happen as we move more toward broadband. Intermodal competition that the Commission has expressed such interest in in recent years in other fora, it will come to rural areas. And rather than bury our heads in the sand and assume it won't have any effect as long as the CETCs as are excluded from the subsidy mechanism or CLECs are not certified and therefore do not receive subsidy, there will continue to be revenue erosion.

With respect to the issue of embedded versus forward-looking costs, years ago all local exchange carriers were regulated on the basis of embedded cost under a system regulation known as rate-of-return regulation. At that time, the carriers would submit extensive rate cases, sometimes 15 or 20 or 25 witnesses, extensive financial and other data. Commissions would review this, would determine the legitimacy of investments, legitimacy of various operating expenses, would conduct audits and reach conclusions as to the overall revenue requirement. They would consider all sources of revenue that were available to the LEC.

When we speak of embedded costs in the context of rural carriers -- and the notion that these somehow are actual costs, I think raises some serious question. Nobody is really looking at these costs. They may be -- they may not have increased in inefficiency, but they certainly have an incentive to continue to escalate spending and escalate their operating costs if they can be assured reimbursement.

It seems to me what we need to move to is a system that will eliminate perverse incentives, that will eliminate incentives of larger carriers to sell off smaller exchanges because they have been able to access more high-cost support incentives that would favor incumbent technology and incumbent carriers over entrance. And, as a general matter, doing these things will make -- will really satisfy and achieve the goals of the Telcom Act, which is to give to rural communities access to the same and equivalent services that are available in urban areas and at prices that ultimately will come to be comparable to those available in non-rural areas.

Thank you. And I'd be happy to respond to any questions.

COMMISSIONER ABERNATHY: I want to thank all our panelists. You did exactly what we asked you, to give us a high-level summary, raise a lot of questions.

So, I think what I'll do is for the first round we'll start to my right. We'll start out with Commissioner Jaber, and then on down to Commissioner Martin. And because we've got enough time, I think each commissioner can go with two questions. If we still have time after that, we'll do another run.

COMMISSIONER JABER: Let me seek your guidance, Madam Chairman. I have a question that I would like to pose to any panelist who wants to comment on it. And then I have a second specific question.

The first one is as I said in the

introduction. I want to focus a little bit on the definition of the rural telephone company. And I heard panelists specifically address that.

Mr. Coit, you took a specific position on it. And my question to you, and then generally to the panelists, is I think that there's recognition that some carriers are receiving support from the program having met the definition of rural telcommunications carrier company, but yet serve in a non-rural area. In my state, in particular, I know of one that is in the Disney area. Disney is not rural in Florida. I pose that to anyone who wants to comment on it.

And then, Dr. Lehman, my question to you is one that comes from confusion and I apologize for that. I'm not sure if you were advocating that we go back and make companies whole by doing rate cases. When you referenced, you said that perhaps it's a question of these incumbents who have not fully recovered the cost of infrastructure. All I could think of was, are you advocating for rate cases?

DR. LEHMAN: No. I think the rate case is an inefficient way to go about that. But I think the point is if the money was already spent and it was spent when newer technology that is presumably much cheaper -- which I actually don't accept as far as loop access goes -- but if that's your premise, then it's much cheaper, to provide access to loop facilities. The money was well spent in the past, but it hasn't yet been recovered. You can't just sort of pull out and say, oh, well, the cost has gone down so now you get half of what you got before. Because the next round, nobody is going to invest in the newest technology without a much more accelerated fashion of recovery.

In some sense, it means the depreciation was inadequate in the past because we're now saying the economic reality is these facilities really don't have much of a life left or don't have much value left. But you're stuck with them on the books because the world has changed, not unlike stranded costs in electrics, which I know you have a lot of experience dealing with. And generally the principle has been accepted that stranded costs are an issue that needs to be dealt with. I think there is a huge stranded cost issue in telcommunications if you believe the premise that costs have dramatically come down.

COMMISSIONER ABERNATHY: Go ahead, Dr. Selwyn.

DR. SELWYN: We don't know that those costs haven't been recovered because we don't have any traditional rate of return analysis of revenues and costs. What we have is a funding mechanism that is sort of cost driven, but is not really focusing on what we might term a traditional revenue requirement.

What we do know is that when exchanges are being sold of, rural exchanges are being sold off, the prices that the buyer is paying for them are multiples of book value, which would certainly give an indication that buyer expects not just to recover the book value of that investment, the embedded cost, but will in excess of the book value.

So, I think in point of act, if

you're going to continue to rely on embedded costs, you must make the very kind of determination that Dr. Lehman has suggested is inefficient. That is, you must make a determination as to whether or not that subsidy is required, whether or not all sources of revenue -- some of which may be below the line and non-regulated but nevertheless flow to that infrastructure -- are, in fact, not fully sufficient to recover the investment. And I don't believe there's ever been a demonstration to the contrary.

COMMISSIONER JABER: And the definition issue and whatever follows.

MR. COIT: Can I speak to that first, please?

My name is Richard Coit. With respect to the rural definition issue, and you mentioned the fact that we had taken a position on that. And in our comments, we have taken the position that -- with respect to determining distribution of support that the rural definition that's contained in the federal Act should be used. It would seem that that -- I guess you can raise an argument as to, you know, what the legal ramifications might be to try to pursue some other definition.

But the fact of the matter is that the law today defines rural telephone companies differently under the ETC designation provisions. And it would seem to us that you have to maintain some consistency with that because of the public interest standard that is there. That is there for the purposes of evaluating whether a carrier should receive federal universal service funding and through designation as an ETC.

One of the concerns that we have with respect to the way things are working today, is it appears to us that there are competitive carriers that if you looked at them in total, you know, certainly would not be receiving rural support if you look at the rural definition. They're receiving rural support simply because they're providing service in a rural area. And that accounts for -- I think we noted in our comments that it appears that that may account for about 25 percent of the support that's going out to competitive carriers. And that's a concern that we have that we do believe should be addressed.

MR. WELLER: Commissioner, there's a famous article in economics called the Disneyland Dilemma and maybe that was anticipating your question. I don't know. Let me just mention a couple facts in framing the answer to your question. First of all, a large number of -- as you know, midsized carriers have been growing a lot recently. And a lot of the lines that we're talking about here are those that they have acquired from larger carriers. So, there are already constraints on the support that they receive. So, for a lot of -- a the large portion of the ones we're talking about, this may not be that great of a change to treat them as non-rural because respectively they're capped at that level already.

There are also some safety catches already built into the system, the safety-valve system. And it probably makes sense to continue that sort of cap for extraordinary circumstances where it's really necessary to make large investments in a particular area. Having said that, though, I think if you look across the larger companies -- incidentally, my company would be affected by this. I think our estimate is it would probably cost us about $7 million per year in support to do what I've proposed. But we need to look at ways to preserve the support so it's directed to where it's really much needed.

I think if we're looking at carriers who, either because of their size have economies of scale similar to larger companies in terms of large portions of their, essentially, overhead parts of their operations or else because of the areas that they serve in terms of density loop investment and so on, aren't that different an operation than non-rural companies, then we do, I think, have to start to think about the wisdom of treating them in the same category as much smaller companies.

And as far as the definition is concerned, again, I'm not the attorney here. This could be my revenge on lawyers trying to do economics. My understanding is that the definitional differences set forth in the Act is with respect to certification of the ETCs. And the Commission is not obligated to use that as a dividing line in terms of the way funding is structured and indeed only arrived at that after several years of deliberations as a matter of convenience. So, they can depart from that if the Joint Board of commissioners finds that suits what they need to do.

MR. GARNETT: Just to follow on Mr. Weller's point, the Act in section 254 does not talk about rural carriers. It talks about consumers in rural high-cost areas. This is a point actually made back in course of the RTF proceeding by the Vermont and Maine Commissions, and the Commission noted that in the order itself in a footnote buried in the back of the item, but I do remember it.

I think the critical thing here is that whatever support mechanism we have has to target support to rural areas, not to rural carriers or to carriers based on whether they might be big or small. So, your example of Sprint in Florida is a good one but --

COMMISSIONER JABER: Smart City.

MR. GARNETT: I'm sorry?

COMMISSIONER JABER: Just for the record, it's Smart City Telcom.

MR. GARNETT: Okay. Well, the other example is Sprint has 2 million lines in Florida. That is the one I thought you were thinking of. But in any case it could be that Sprint does serve some high-cost areas or the company you were talking about does serve some high-cost areas. And whatever support mechanism we have in place should target support to those high-cost areas.

One of the problems with the current system is we have this problem of averaging. So, under the current system if you have a study area that has 2 million lines in it and there are high-cost and low-cost areas in that study area, you're not going to get support under most cases. And the same thing is true under the non-rural mechanism where you average costs at the state level.

We think ultimately the better system is to get rid of the statewide averaging and study area averaging and target support to